

"The little which European inquiry has hitherto been able to teach us of the real condition of Japan in the ancient times shows that the historical representation of this period in the 'Kojiki' and 'Nihongi' (upon which rest all the later statements of the Japanese) is most profoundly penetrated by false principles. The newer relations, partly developed from later material, partly influenced by Chinese culture, are reflected back upon the oldest without due distinction, and the result is a confused picture in which the critical inquirer can, it is true, frequently separate what is original from subsequent additions, but must often let fall his hands in despair."

The earliest part of the "Nihongi" consists of myths, pure and simple, and while it is necessary to sift the mass of legendary tales which it recounts for the grains of truth which it contains—and the grains are there—its value is enhanced by the poems of undoubted antiquity which are constantly introduced. This mythological period extends to the fifth century, and it is upon this portion of the history, with extracts from the "Kojiki," that Dr. Florenz has based his present work.

Japan is a land of myth. Of a more imaginative race than the Chinese, and enriched with the stores of legend gathered from the Malay Peninsula and the northern mainland of Asia, the Japanese have through all history revelled in the weird conceptions of the imagination, and even at the present day, unchecked by the veneer of civilisation which they have adopted, they see elves and fairies on every hill and in every valley, and recognise elfin foxes in moments of heightened fancy.

According to the "Nihongi," the creation of the world was after this wise, and here again we trace the influence of Chinese thought. In the beginning the universe was in a state of chaos, out of which by a process of disintegration the lighter and finer portions separated themselves from their surroundings and rising upwards formed the skies, while the more substantial constituents resolved themselves into the world. These two elements formed the male and female principles of Nature and begat certain deities, two of whom, Izanaki and Izanami, were the first to divide the land from the waters. We are told that these deities

"stood on the floating bridge of heaven and held counsel together, saying 'Is there not a country beneath?' Thereupon they thrust down the jewel spear of heaven and groping about therewith found the ocean. The brine which dripped from the point of the spear coagulated and became an island, which received the name of Onogoro," *i.e.* self-curdled.

This legend is interesting as reminding us of the Greek myth of Dêlos, *i.e.* Manifest, which was so called from its suddenly emerging from the sea. Dêlos was, as will be remembered, the centre or hub of the Cyclades, which derived their name, ἀπό κύκλου, from the wheel. Another and a still more striking parallel is furnished by the account which relates that "Poseidon with one blow of his trident made the island surge from the bottom of the ocean." In other lands besides Greece we recognise this legend under varying forms, and, indeed, on almost every page of Dr. Florenz's work we find traces of world-wide myths. One of the most widely spread of these is that of St. George and the Dragon. Sosa no wo no Mikoto in this case represents the Christian St. George and

Kushi-nada-hime is the lovely maiden whom he rescues from the fangs of the serpent or dragon.

To the comparative mythologist Prof. Florenz's work will be invaluable. But, as it professes to be, it is essentially a book for the student of folk-lore. By such it will be found full of suggestive matter, while it is much to be feared that to the ordinary reader it will be but a weariness to the flesh.

OUR BOOK SHELF.

An Introduction to Chemistry. By D. S. Macnair, Ph.D., B.Sc. Pp. xii + 187. (London: George Bell and Sons, 1902.) Price 2s.

WHATEVER may be thought of the use of text-books in teaching elementary science, there can be no doubt as to the improvement which has taken place in the character of such books in recent years. The change is particularly noticeable in volumes dealing with the rudiments of chemistry and physics. Instead of the descriptive style formerly in vogue, we have now courses of practical work connected with a few explanatory paragraphs, and the whole constructed upon a plan which aims at making the pupil do things for himself and so far as possible arrive at his own conclusions.

Dr. Macnair's book is based upon this method, and as a representative of a good type it deserves a welcome from teachers of science. Beginning with simple observations and experiments on solubility, the author paves the way to the study of the rusting of iron, the atmosphere, water, chalk and a few other common bodies, following in a general way the course suggested by Prof. Armstrong, which is now followed in many schools, with results encouraging both to teachers and pupils.

As to the educational value of work of the kind described by Dr. Macnair, no one who has tried it with young pupils desires to go back to the old method of teaching chemistry by test-tubing in the laboratory and startling experiments in the lecture room. Quantitative work which was formerly postponed until pupils were able to make an analysis of a simple salt is now taken up at the beginning of a course, and early use is made of squared paper for plotting results. Dr. Macnair, for instance, shows on his twelfth page how solubility curves should be constructed from results of experiments.

To anyone familiar with the excellent work now being done in schools, by the practical study of common properties of matter, the book adds little that is new, and many of the experiments will be recognised. But this does not make the book any the less useful as a practical manual containing a course of work suitable for introducing pupils to methods of scientific study.

A Tentative List of the Flowering Plants and Ferns for the County of Cornwall, including the Scilly Isles.

By F. H. Davey. Pp. xvi + 276. (Penryn: F. Cheg-widden, 1902.)

THE spirit in which Mr. F. H. Davey has taken up the task of preparing a "Flora of Cornwall," which shall rank with Druce's "Flora of Berkshire" and other similar handbooks bodes well for success. In two years and a half this tentative list has been formulated, and as one looks through the list of species and records there is ample proof of excellent work. The principle of the book is to give the first record for each species, besides a complete list of localities for species and varieties. Also it is sought to amplify the published list of plants found in Devon, but wanting in Cornwall, and to obtain details of local peculiarities of growth, as well as local names or any plant lore which can be unearthed. In the book

before us these features are not treated, but presumably in the "Flora" they will be incorporated. Also it would add to the interest of the book if a summary of the principal ecological features were presented. It is evident from the published list of contributors that Mr. Davey has been successful in enlisting the services of many well-known systematists; but more workers are required, especially residents in the districts just north and east of Truro, also in Camborne and the country lying south. To these and to botanists visiting the county Mr. Davey will gladly supply copies of "the tentative list," which is interleaved for notes, so that their records may be returned to him in November, 1903, when the accumulated data will be worked up.

Outer Isles. By A. Goodrich-Freer. Pp. xv + 448. (Westminster: Constable and Co., Ltd., 1902.) Price 12s. 6d. net.

THIS book contains much valuable information about the Outer Hebrides and their people, and it is good service to have it put on record in accessible and readable form. Specially good are the accounts of the *Ceilidh*, or custom of "assembling together during the long winter nights to pass them off in happiness and mirth," and of the process of "fulling" or dressing the Harris cloth. But the work as a whole is blemished by a want of perspective. The natives of the Outer Isles are, after all, not without faults, and even vices, and some of their virtues are shared by inhabitants of the "adjacent islands of Great Britain and Ireland." There is something to be said on the side of the landlord, the Free Kirk, and even the sporting Sassenach, and the reiteration of their enormities on all possible occasions becomes very tiresome. It is not true that the people of the Outer Hebrides are "practically less known to the average Englishman than the inhabitants of New Zealand or of Central Africa," or that "those who penetrate to their islands, so far at least as they are represented by comfortable inns in easily accessible places, come back knowing nothing of the life of the people, and only ready to condemn them as half-savage, extortionate, and above all, idle."

The Fauna of British India, including Ceylon and Burma. Published under the authority of the Secretary of State for India in Council. Edited by W. T. Blanford. Rhynchota, vol. i. (Heteroptera). By W. L. Distant. Pp. xxxviii + 438. (London: Taylor and Francis, 1902.)

THIS important work continues to make steady progress, and we have now the pleasure to notice the appearance of another volume devoted to entomology, in addition to those already published by Sir G. Hampson on "Moths," Col. C. T. Bingham on "Hymenoptera" and Mr. R. I. Pocock on "Spiders." Mr. W. L. Distant is so well known as a close student of Rhynchota, and also for his careful and accurate work, that we have no doubt that specialists will find the present volume to be one of the most complete and satisfactory that has yet appeared on the subject; and it should give a great impetus to the study of Rhynchota, especially in India and in the adjacent countries.

Following Severin, Mr. Distant accepts fifteen families, eleven of which are represented in India, the first volume including descriptions of the Pentatomidæ, Coccidæ and Berytidæ. We may point out that Dr. D. Sharp's estimate of about 18,000 species of Rhynchota, quoted by Mr. Distant on p. xxxv, is obviously much too low, the number given by Mr. W. F. Kirby as long ago as 1892, in the second edition of his "Elementary Text-book of Entomology" (p. 14), being already 18,300. The volume is illustrated by 249 excellent text illustrations by Mr. H. Knight, including a series of very clear illustrations of structure in the introduction.

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LETTERS TO THE EDITOR.

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The Carnegie Institution of Washington, D.C.

SIR,—It gives me great pleasure to answer in writing some of the questions which you, and others who are interested in scientific research, have asked in respect to the scope of the institution lately founded in Washington by Mr. Andrew Carnegie.

To begin with, it may be well to recapitulate the facts already made known. The amount of his gift is ten million dollars (2,000,000*l.*), so invested that the annual income is five hundred thousand dollars (100,000*l.*). The control of this fund is invested in a board of twenty-seven trustees, selected from widely separated parts of the United States, and including many men who have won distinction and confidence by the service they have rendered in public life. It is not a board made up of specialists, but rather (if I may be allowed the expression) of generals—that is to say, of men accustomed to the administration of large affairs, political, financial, philanthropic and educational. Absolute power is given to this board to devise such methods and form such plans as may seem to them wise in order to carry out the purposes of Mr. Carnegie. These purposes he has clearly defined in the deed of trust and, with less formality, in the remarks which he addressed to the trustees when they first came together on January 29, 1902, under the chairmanship of the Hon. John Hay, Secretary of State, and recently the Ambassador of the United States in London.

In one general phrase, which reads as follows, Mr. Carnegie thus lays down the principle which has guided him:—"It is proposed to found in the city of Washington an institution which, with the co-operation of institutions now or hereafter established there or elsewhere, shall in the broadest and most liberal manner encourage investigation, research and discovery, show the application of knowledge to the improvement of mankind, provide such buildings, laboratories, books and apparatus as may be needed, and afford instruction of an advanced character to students properly qualified to profit thereby."

There are six points upon which the munificent donor then proceeds to lay emphasis, and these are, namely, the promotion of original research; the discovery and encouragement of exceptional men; the increase of facilities for higher education; the assistance of those now engaged in research; the bringing to Washington of students qualified to profit by the work carried on in the several departments of the Government; and finally, the publication of scientific memoirs.

So far all was clear. Mr. Carnegie's part was performed. Now began the perplexities and responsibilities. The trustees, many men of many minds, must take the subsequent steps. Fortunately, there was no occasion for hasty action; at the outset no buildings were to be constructed, no faculty was to be brought together. Such considerations could be postponed indefinitely. The trustees decided to take time for reflection and for conference with the leaders of science at home and abroad, before the adoption of a programme. Letters were addressed to many persons who could not be reached in person. Confidential interviews were secured with those who could be seen in Europe and the United States. The experience of existing institutions was studied, such as the Royal Society, the Royal Institution, the Academies of Science in Berlin, Munich, Vienna, Paris and other cities. Attention was given to the conditions which have helped or retarded the progress of eminent men during the last generation